ATTACHMENT C

ASAP TELECOMMUNICATIONS FORMAT FOR CONTROLLED SUBSTANCES

AMERICAN SOCIETY FOR AUTOMATION IN PHARMACY

ASAP Telecommunications Format for Controlled Substances

Revised 5/95

American Society for Automation in Pharmacy

482 Norristown Road, Suite 112, Blue Bell, PA 19422
610/825-7783 • FAX 610/825-7641

Contents

Introduction

This document contains the data format, content, and communications protocol for electronic reporting of controlled substances by pharmacies.

This telecommunications format (revised May 1995) is designed to accommodate the needs of state pharmacy boards and state narcotics agencies to collect timely data on controlled substances dispensed. The revised format allows for the transmission and capture of more data consistent with the need voiced to increase the scope of information collected for each prescription more effective control of fraud and abuse.

Additionally, the revised format enables the transmission of all schedules, not just Schedule IIs. The identification of the appropriate schedule can be determined by the National Drug Code submitted.

With the length of the record extended to 222 bytes from 128 bytes it is recommended that a minimum baud rate of 2400 be supported by the capturing (host) computer. Support of higher baud rates (up to 14.4k) is encouraged as well, particularly where requirements call for transmission of more than just Schedule II drugs.

While provision has been made to transmit the triplicate serial number where triplicate-prescription programs are currently in place, use of this field is not encouraged because of the extra data-entry step by pharmacists during prescription processing. In addition, this will require resizing the prescription file in pharmacy computers in order to append the number to the prescription and a special prompt would be needed on the prescription-processing screen in order to capture the number. The diagnosis code would present the same problems. Electronic capture of Controlled Substances would transcend the need for a triplicate-prescription paper system since, by design, electronic capture accomplishes the same end result in a more timely and accurate manner.

The ASAP format and communications protocols are for a batch-file transfer. The prescription record is fixed length meaning the entire 222 bytes are transmitted. If for example, patient address information isn't required, the capturing (host) computer would ignore those fields.

A batch-file approach was selected over realtime because it is less complex and, therefore, less costly to implement. The other advantage is less disruption to pharmacists during the prescription process since it would be an off-line procedure. Moreover, all pharmacy computers are designed to handle only a single realtime transmission. Adding an additional realtime transmission will require significant reprogramming effort of pharmacy computers. It also will double the time it takes to transmit and receive acknowledgments of prescriptions, when the controlled substance also happens to be a prescription that requires realtime submission for claims reimbursement.

In the ideal world the host systems would always be available, never time out, and every prescription would be adjudicated as submitted. In this light realtime may sound like an efficient solution. But this is far from a real-life scenario. Host systems go down, host systems time out before completion of the transaction, claims are rejected for a variety of reasons, and transactions are reversed. In cases where reversals take place this would mean double reversals if the prescription also happened to be a Schedule II or other Schedule requiring realtime transmission. In other words, there are significant cost and operational ramifications to pharmacy for a realtime implementation of a controlled-substance reporting program. For these reasons ASAP finds an off-line, batch-file approach as a more cost-effective and practical solution.

ASAP Telecommunications Format for Controlled Substances

Field Name	Field Type	Field Format	Field Length	Positions
Identifier	1	A/N	3	001 – 003
Bin	1	N	6	004 – 009
Version Number	1	N	2	010 – 011
Transaction Code	1	N	2	012 – 013
Pharmacy Number	2	A/N	12	014 – 025
Customer ID Number	3	A/N	20	026 – 045
Zip Code	3	A/N	3	046 – 048
Birth Date	3	N	8	049 – 056
Sex Code	3	N	1	057 – 057
Date Filled	4	N	8	058 – 065
Rx Number	4	N	7	066 – 072
New – Refill Code	4	N	2	073 – 074
Metric Quantity	4	N	5	075 – 079
Days Supply	4	N	3	080 – 082
Compound Code	4	N	1	083 – 083
NDC Number	4	N	11	084 – 094
Prescriber ID Number	4	A/N	10	095 – 104
DEA Suffix	4	A/N	4	105 – 108
Date RX Written	4	N	8	109 – 116
Number Refills Authorized	4	N	2	117 – 118
Rx Origin Code	4	N	1	119 – 119
Customer Location	3	N	2	120 – 121
Diagnosis Code	3	A/N	7	122 – 128
Alternate Prescriber #	4	A/N	10	129 – 138
Patient Last Name	3	A/N	15	139 – 153
Patient First Name	3	A/N	15	154 – 168
Patient Street Address	3	A/N	30	169 – 198
State	3	A/N	2	199 – 200
Zip Code (Extended)	3	A/N	9	201 – 209
Triplicate Serial Number	4	A/N	12	210 – 221
Filler	1	A/N	1	222

Field Type Values

1 = General or control information
2 = Dispenser information
3 = Customer information
4 = Prescription information
5 = Response information

Field Type Values

'N' = Unsigned numeric, always right-justified, zero filled
'A/N' = Alphanumeric, always left-justified, space filled

Field Definitions and Values of Necessary Fields

Field Name	Definition	Values/Comments
Identifier	Transmission type identifier	ASB (ASAP Batch)
Bin	Bank identification number used to identify the state agency to which information is transmitted. Each processor will need to have a bin assigned by: American National Standards Institute 1430 Broadway, New York, New York, 10018, 212-354-3300	
Version Number	A number to identify the format of the transaction sent or received	AS2 indicates 5/95 format used
Transaction Code	Format designed to transmit all Schedules. Specific schedules can be identified by the drug's NDC	01 = Controlled substances
Pharmacy Number	NABP number assigned to the Pharmacy	
Customer ID	A number to identify the patient receiving Rx	Social Security or Driver's License number
Zip Code	3 digit U.S. Postal Code identifying the State Code	Indicate the first 3 positions of the customer's zip code
Birth Date	Customer's birth Date	YYYYMMDD format
Sex Code	Sex of the customer	1 = Male 2=Female
Date Filled	Date the prescription was filled	YYYYMMDD format
Rx #	Prescription number	Assigned by the pharmacy
New-Refill Code	Code indicating whether the prescription is new or refill	00=New 01-99=Refill
Metric Quantity	Number of metric units of drug being dispensed	
Days Supply	Estimated number of days the prescription will last	
Compound Code	Code indicating whether or not the prescription is a compound medication	0 = Not Specified 1 = Not Compound 2 = Compound
NDC Number	National Drug Code of the drug dispensed	(5-4-2) format
Prescriber ID	DEA number of the prescribing physician	
DEA Suffix	DEA Suffix	Report the DEA Suffix (4 positions)
Date Rx Written	Date the Rx was written	YYYYMMDD format
Number Refills Auth.	Number of refills authorized by prescriber	

continued

Field Definitions and Values of Necessary Fields (continued)

Field Name	Definition	Values/Comments
Rx Origin Code	Code indicating the origin of the prescription	0 = Not Specified 1 = Written Rx 2 = Telephone Rx
Customer Location....	Code indicating location of patient (customer)	00 = Not Specified 01 = Home 02 = Nursing Home 03 = Outpatient 04 = Hospice
Diagnosis Code	ICD-9 or CPT code provided by prescriber	
Alternate Prescriber ..	State license number or HIN. To be included if DEA number field is for an institution rather than the prescriber.	
Patient Last Name	Patient last name up to 15 characters	
Patient First Name	Includes middle initial and suffix appended and is optional by the pharmacist	
Patient Street Address	Street or PO Box #	
State	Standard two-digit state abbreviation	
Zip Code	Full zip code including 4-digit suffix	Report as 5 or 9 digits without hyphen
Triplicate Serial #.....	Number assigned to triplication prescription document. The use of this number is for states that already have a triplicate Rx program and would like to capture this number.	
Response Status	Response Status	A = Accepted R = Rejected

ASAP Telecommunications Standard Format for Controlled Substances

Protocol : Asynchronous, 7 bits, even parity, 1 start and 1 stop bit, 2400 baud. Longitudinal Redundancy Checking (LRC) will be used.

ETX : in Hexadecimal ... 0 3

EOT : in Hexadecimal ... 0 4

STX : in Hexadecimal ... 0 2

ENQ : in Hexadecimal ... 0 5

ACK : in Hexadecimal ... 0 6

NACK: in Hexadecimal ... 1 5

A Word About Communications Protocols

There are two communications protocols that can be used:

1. This is the communications protocol outlined in this document which allows an acknowledgment of each record using the accept or reject message. With the latter, up to two specific fields can be identified as missing data.
2. ASAP also has an implementation guide for the X12 asynchronous communications protocol that is used for other EDI applications. It is designed to work with Xmodem, Xmodem-1K, Kermit, and other public-domain protocols. This implementation guide is available upon request.

Algorithm for Calculating the LRC

A longitudinal redundancy character (LRC) is generated with each message transmitted. The LRC helps to insure that messages are received without error. The LRC check byte is calculated by doing an exclusive-or with each byte of the message not including the STX byte but including all other bytes and the ETX byte.

An exclusive-or is performed between bits as follows:

Bit 1	Bit 2	Exclusive-or Result
0	0	0
1	1	0
0	1	1
1	0	1

In other words, if both bits are the same, the result is zero. If the bits are different, the result is 1.

Note that this denotes a protocol scenario with unrecoverable transmission errors.

Other task/terminal		**Record Processing System**
	<==========	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	STX/Data Rec/ETX/LRC
ACK	==========>	
	<==========	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	NACK
STX/Data Rec/ETX/LRC	==========>	
	<==========	NACK
STX/Data Rec/ETX/LRC	==========>	
	<==========	NACK
STX/Data Rec/ETX/LRC	==========>	
	<==========	EOT
	Disconnect	

Note that this denotes a protocol scenario with unrecoverable response transmission errors.

Other task/terminal		**Record Processing System**
	<==========	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	STX/Data Rec/ETX/LRC
ACK	==========>	
	<==========	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	STX/Data Rec/ETX/LRC
NACK	==========>	
	<==========	STX/Data Rec/ETX/LRC
NACK	==========>	
	<==========	STX/Data Rec/ETX/LRC
NACK	==========>	
	<==========	EOT
	Disconnect	

Note that this denotes a protocol scenario with unrecoverable response transmission errors.

Other task/terminal		Record Processing System
	<========== ENQ	
STX/Data Rec/ETX/LRC	==========> ENQ	
	<========== STX/Data Rec/ETX/LRC	
ACK	==========> STX/Data Rec/ETX/LRC	
	<==========	ENQ (3 sec timeout)
	<==========	ENQ (3 sec timeout)
	<==========	ENQ (3 sec timeout)
	<==========	EOT
	Disconnect	

Reject Codes

Reject Code	Explanation
01	M/I Bin
02	M/I Version Number
03	M/I Transaction Code
04	M/I Processor Control Number
05	M/I Pharmacy Number
07	M/I Customer ID
09	M/I Birthdate
10	M/I Sex Code
15	M/I Date Filled
16	M/I Rx Number
17	M/I New-Refill Code
18	M/I Metric Quantity
19	M/I Days Supply
20	M/I Compound Code
21	M/I NDC Number
25	M/I Prescriber ID
28	M/I Date Rx Written
29	M/I Number Refills Authorized
33	M/I Rx Origin code
85	Record not processed
86	M/I Dx Code
87	M/I Alternate Prescriber #
88	M/I Patient Last Name
89	M/I Patient First Name
90	M/I State Code
91	M/I Zip Code
92	M/I Triplicate Serial #
99	Host Processing Error

ASAP Transmission Protocol

Note that this denotes a protocol scenario with no errors, and multiple records to be sent.

Other task/terminal		Record Processing System
	<==========>	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	STX/Data Rec/ETX/LRC
ACK	==========>	
	<==========	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	STX/Data Rec/ETX/LRC
ACK	==========>	
	<==========	ENQ
EOT	==========>	
	Disconnect	

Note that this denotes a protocol scenario with errors, and multiple records to be sent.

Other task/terminal		Record Processing System
	<==========	ENQ
STX/DATA Rec/ETX/LRC	==========>	
	<==========	
	<==========	STX/Data Rec/ETX/LRC
ACK	==========>	
	<==========	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	NACK
STX/Data Rec/ETX/LRC	==========>	
	<==========	STX/Data Rec/ETX/LRC
NACK	==========>	
	<==========	STX/Data Rec/ETX/LRC
ACK	==========>	
	<==========	ENQ
STX/Data Rec/ETX/LRC	==========>	
	<==========	STX/Data Rec/ETX/LRC
ACK	==========>	
	<==========	ENQ
EOT	==========>	
	Disconnect	

ASAP Response Data Format

Field Name	Field Type	Field Format	Field Length	Positions
Version Number	1	N	2	001 – 002
Transaction Code	1	N	2	003 – 004
Response Status	5	A	1	005 – 005
Response Data	5	A	7	006 – 012
Response Data Format for 'A' Status				
Filler	5	A	7	006 – 012
Response Data Format for 'R' Status				
Reject Count	5	N	2	006 – 007
Reject Number 01	5	N	2	008 – 009
Reject Number 02	5	N	2	010 – 011
Filler	5	A	1	012 – 012